WRITTEN TESTIMONY OF:

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Subcommittee on Energy and Air Quality

"Climate Change and Energy Security:
Perspectives from the Auto Industry"

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MEMBERS OF THE COMMITTEE:

Good afternoon, I'm Alan Mulally, President and CEO of Ford Motor Company. It is a pleasure to be here in the Nation's capital, to provide our perspective on these important issues. But before I talk about energy security and climate change, I would like to spend a moment telling you about our company.

Ford Motor Company is comprised of many brands and affiliates including: Ford, Lincoln, Mercury, Volvo, Land Rover, Jaguar, Mazda and Ford Credit. We operate facilities in 45 states and about one in every five American autoworkers is employed by Ford Motor Company. Beyond direct employment of over 100,000 people in the United States, Ford impacts nearly 2 million American jobs or nearly 2 percent of private sector employment. Over the last three years, Ford has spent nearly $23 billion on research and development – the vast majority of which has been here in the United States. This is about as much as the Department of Energy spends on R&D for all of its programs and national laboratories.

As you know, Ford is facing significant challenges in North America and some of you might be wondering what the future holds. I can tell you that we have a strong plan, with the right team, to turn around our company. Our plan is rooted in the deployment of advanced, innovative technologies to improve the fuel efficiency of our vehicles and to deliver outstanding quality and features that our customers desire.

And our plan is beginning to show results. Earlier this year, *Consumer Reports* recognized our progress by displaying the Ford Fusion on the cover of their automotive issue, highlighting its outstanding quality. The Ford Fusion had strong sales in its first month – and our new "crossover" vehicle, the Ford Edge, has posted even higher sales in its first two months while also being named a "Top Safety Pick" by the Insurance Institute of Highway Safety. And our car sales over the last two years have increased by 13 percent. We have a realistic plan, we have more great products coming, and we have more than one hundred thousand dedicated and talented employees here in the United States determined to deliver new technologies and outstanding results.

Now let's talk about global climate change and energy security. Although I'm new to this debate, I am aware that Ford was the first company in our industry to publish a report on the business impact of climate change. Here's a copy of that report that I would like to submit to the record. In addition, since 1999 we've reported on sustainability -- the triple bottom line that addresses environmental, financial and societal impacts. In 2005, after the Katrina hurricane when gas prices spiked, our Chairman, Bill Ford, called for a "national dialogue" to seek solutions that address our nation's energy security.

Today, I'm here to tell you that Ford remains committed to working with you to secure our energy future and address climate change. But we need government to be our partners, not our adversaries. Ford has long acknowledged the importance of climate

change and recognizes its potential impact on the environment, the economy, workers, and society.

As we work to address climate change, one important principle to remember is that "all CO2 molecules are created equal" – once those molecules reach the upper atmosphere, they contribute to greenhouse gases, regardless of their source. So, CO2 has no boundaries or borders. However, the cost of mitigating man-made carbon emissions varies significantly depending on the source. The atmosphere doesn't care where the CO2 comes from, but the economy does and we should attempt to achieve the most economically efficient solutions possible.

As you know, the transportation sector produces about one-third of the nation's CO2 emissions and about one-fifth comes from cars and trucks. We recognize that reducing CO2 from cars and trucks will be an important element of any energy security and climate change policy. We also recognize that an effective policy must consider an "integrated approach" – a partnership of all stakeholders which includes the automotive industry, the fuel industry, government, and consumers. Yes, we need more efficient vehicles, but we also need lower carbon fuels and consumer incentives to adopt these technologies. Within the transportation sector, the government must reconcile decisions affecting fuels, vehicles, and travel demand in order to achieve the twin goals of reducing carbon emissions and securing our energy future. Our analysis shows that the most cost effective solutions to lowering the CO2 emissions from vehicles must be a combination of bio-fuels and vehicle technology advancements. But overall it is the

customer who will choose what they buy and how they drive. The truth is that we must all accept that these are long-term challenges and that we are all part of the solution.

In addition, future developments in technologies, ever-changing markets, consumer demand and political uncertainties require flexible solutions. The business strategies that Ford implements, and the public policies that we encourage, must have the flexibility to meet a range of potential scenarios. All scenarios will call for reduced CO2 emissions, but within that broad expectation is a host of possibilities. Today, we are continually challenging our engineers to improve fuel economy through weight reductions, improved aerodynamics, optimization of accessory loads, and more efficient transmissions. No one can predict if the powertrain of the future will be hydrogen, bio-fuels, battery electric, advanced diesel and gasoline or some combination of these technologies. There is "no silver bullet" solution and that's why we are involved in so many development paths - sometimes with unique partners.

CAFE isn't a silver bullet either. When the CAFE law was passed in the 1970s, the goal was to reduce our dependence on foreign oil. Frankly that didn't work. Even though today's average light truck gets better fuel economy than an average 1970s compact car, the unintended consequence was that as gas prices fell, people drove more. In fact while the number of vehicles on the road today is three times the number in the late 1960s, the miles traveled has quadrupled making us more dependent on foreign oil.

Therefore, new solutions to address the energy security and climate change problems must not have unintended consequences or impede our U.S. global competitiveness.

Ford recognizes that we must participate in a solution to these issues and we have invested significant money and resources into the research and development of innovative vehicle technologies. We are developing a range of advanced technologies that improve fuel efficiency and diversify vehicle fuels away from petroleum including hybrid-electric, flexible fuel vehicles, clean diesel, hydrogen internal combustion engines, hydrogen fuel cells and advanced gasoline engines.

I am proud to say that Ford produced the first American-made full hybrid electric vehicle on the road – the Ford Escape Hybrid. We have expanded our hybrid line-up to include the Mercury Mariner and Mazda Tribute hybrids and will continue to grow our offerings with the Ford Fusion and Mercury Milan hybrid electric vehicles. In addition to hybrids, we believe that greater use of renewable low carbon fuels like ethanol (E85) can help address climate change while also reducing reliance on foreign oil and providing a true fuel choice to consumers.

Ford has been building flexible fuel vehicles for over a decade and we have placed more than 2 million on America's roads. Flexible fuel vehicles are a great alternative for our customers because they provide an option to choose between E85 and gasoline as desired. Last summer, Ford, along with GM and DaimlerChrysler voluntarily committed to double the production of flexible fuel vehicles by 2010. In November, we expanded

that commitment to include half of our vehicles produced each year by 2012, provided there are sufficient amounts of ethanol and enough retail facilities to support consumers operating their vehicles on E85. To further support consumer access to ethanol, we helped open 50 new E85 stations in the nation's first ethanol corridor. This will allow flexible fuel vehicle owners to drive from Chicago to Kansas City and back – a distance of 1,700 miles – fueling exclusively with E85.

And we're not stopping there. Just a few weeks ago, we introduced the Ford Escape Hybrid Electric E85 demonstration project that combines two petroleum-saving technologies – hybrid electric power and E85 flexible-fuel capability. Though there are many technical and cost challenges to address, we believe that if just 5% of the U.S. fleet were powered by E85 HEVs, oil imports could be reduced by about 140 million barrels or 6 billion gallons of gasoline each year.

These hybrid electric and flexible fuel vehicle initiatives emphasize Ford's strong commitment to the nation's energy security and climate change efforts. But there is a limit to what we can achieve on our own. We must find a way to bring affordable and renewable low carbon fuels to the customer as well. Currently there are over 6 million flexible fuel vehicles on America's roads but only 1,100 E85 fueling stations – and that's out of over 170,000 retail gasoline stations nationwide. If all of these flexible fuel vehicles currently on the road were operated on E85 ethanol we could save a full year of gasoline consumption in a state like Missouri or Tennessee. We stand ready with the

technology and we are willing to lead the way, but we need to partner with government and fuel providers – we must have the fuel infrastructure before we can effect change.

At Ford, we are clearly excited about the role of renewable fuels. In fact, the first ethanol vehicle goes back to the days of Henry Ford and the Model T. Renewable American grown fuels have the potential to significantly reduce carbon emissions and the nation's dependence on foreign oil. Today's ethanol made from corn has the ability to reduce CO2 emissions by approximately 25 percent – tomorrow's cellulosic ethanol can increase this percentage to about 85 percent. Ford supports federal incentives that encourage the production, distribution, and use of low carbon, affordable renewable fuels and flexible fuel vehicles capable of running on renewable E85 ethanol. We can truly have an American solution to these problems.

Ford also believes the issues of energy security and climate change are directly related and must be discussed together. Ford will continue to do our part in producing flexible fuel vehicles and improving vehicle fuel efficiency. We support increasing passenger car CAFE standards to maximum feasible levels and reforming the CAFE structure, similar to the light truck reform which set standards based on size or "footprint". We also support taking the politics out of the CAFE decision. Setting CAFE standards can only be properly accomplished after a thorough analysis of the data – technical data, economic data, and safety data. We believe NHTSA has this capability.

We all agree on the same goals, reducing carbon emissions and reducing U.S. dependence on foreign oil, but we must also recognize that CAFE has been one solution but may not be the best way to achieve our shared goals. We need to focus on using less high carbon fuels like gasoline and transitioning to low carbon fuels including ethanol, new bio-fuels, bio-diesel, electricity, and eventually hydrogen. This will do more for reducing carbon emissions and our dependency on foreign petroleum than an approach focused solely on CAFE.

In order to reduce overall greenhouse gases, every sector of the economy will have to contribute to fixing the problem. We are ready to do our part, but cars and trucks produce only one-fifth of the emissions so any governmental action on our sector will have only a partial impact on the problem. For too long, each sector has wanted someone else to be the solution in order to pass the buck. This piecemeal approach will not work if we are serious about change.

Congress will have to make some tough choices. In the transportation sector alone there are a number of possible ways to limit carbon emissions. Increasing CAFE too quickly and aggressively will have serious negative consequences on the American automobile industry and could significantly reduce consumer vehicle choices. We need to have a serious dialogue with all key stakeholders including Congress to develop real solutions to these real problems. Is an upstream cap and trade approach the answer? What about a low carbon or bio-mass fuel standard? Or is increasing the cost of driving, like a higher fuel tax the answer? How can we positively influence the

consumer without negatively impacting small business and denying families their mobility? These are tough questions, and will require tough choices.

At Ford, we look forward to working with you on a comprehensive approach that will be both effective and fair without seriously impacting the U.S. economy.

I look forward to taking your questions.